

REMARKS

Claims 1-37 are pending in this application. By this Amendment, the Specification and claims 1-37 are amended. Reconsideration based on the above amendments and following remarks is respectfully requested.

I. Information Disclosure Statement

Applicants respectfully submit that the date of publication for the Okabe reference is July 5, 1996, and is evidenced by the attached copy of Okabe. In particular, and as shown by the translation, the "first impression of the first edition", in other words the first publication date, is July 5, 1996. Accordingly, Applicants respectfully request withdrawal of this objection, and ask that Okabe be fully considered. Paragraph [0013] is amended to reflect the correct date for publication.

II. Drawings

By this Amendment, paragraphs [0100], [0142] and [0151] have been amended to obviate the objections to the drawings. Accordingly, Applicants respectfully request that objections to the drawings be withdrawn.

III. Specification

Applicants respectfully submit that the substitute specification is in compliance with 37 C.F.R. §1.52(a) and (b). No new matter is added in the substitute specification.

Specifically, the following items are addressed:

A. Paragraph 37 is corrected to obviate this objection.

B. Paragraph 173 is amended to obviate this objection.

C. The Office Action objects to the terms "beyond fields." Applicants respectfully submit that the substitution of the term, "--across fields--" for the term "beyond fields" obviates this objection. This term is corrected in replacement paragraphs 1, 5-7, 20, 26, 28, 32, 36, 42, 134, and 195.

D. Paragraph 173 is amended to obviate this objection.

E. Paragraphs [0034 - 0035] and [0038 - 0040] are rewritten.

F. Paragraph [0151] is amended to obviate this objection.

IV. The Claims Define Allowable Subject Matter

A. Claim Rejections Under 35 U.S.C. §101

The Office Action rejects claims 36-37 under 35 U.S.C. §101 as being directed to non-statutory subject matter. This rejection is respectfully traversed.

Specifically, Applicants assert that amended claims 36-37 are directed to an automated process an automated method and respectfully submits that an automated method and process as claimed are statutory subject matter because the subject matter of claims 1-37 produce a useful, concrete and tangible result. See MPEP 2107.02 III, IV.

"The *Alappat* inquiry simply requires an examination of the . . . claims to see if the claimed invention as a whole is a disembodied mathematical concept representing nothing more than . . . an "abstract idea" or if the mathematical concept has been reduced to some practical application rendering it "useful."" In *Alappat*, the Federal Circuit held more than an abstract idea was claimed because the invention as a whole was directed toward forming a specific machine that produced the useful, concrete, and tangible result. See *AT&T Corp v. Excel Communications Inc.* 50 USPQ2d 1447, 1451 citing *In re Alappat*, 31 USPQ2d 1545, 1557 (Fed. Cir. 1994).

Applicants respectfully submit that amended claims 36-37 are reduced to a practical application. The subject matter of claims 36-37 recite an automated process description that are executed by a computer. The automated apparatus and method produces the useful, concrete and tangible result of process design and analysis.

As discussed in the Response dated December 30, 2003, the subject matter of claims 36-37 builds a description of a process by use of attributes and definitions of the filed of use

for the process (epistemological grounds) of the process that is being described, including reiterating the steps inputting the description and analysis of the results until an end condition is satisfied and characterizing an E-R model. The useful, concrete and tangible result of the apparatus and method of claims 36-37 is a process model that has the practical application of process design and analysis.

The practical use of process design and analysis is well-established in the art as evidenced at least in U.S. Patent No. 5,819,270 to Malone et al. ("Malone") (See the Abstract, Field of the Invention and Background of the Invention of Malone).

Additionally, the Office Action mentions claims 1, 7 and 13 (and possibly 10-12 and 14) under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. However, it is respectfully submitted that the Office Action offers no clear basis for the rejection of these claims. In fact, the Office Action continues to discuss claims 36 and 37. Accordingly, clarification of this rejection is respectfully requested.

In view of the above, the Applicants respectfully submit that claims 1-37 comply with 35 U.S.C. §101, and withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

B. Claim Rejections Under 35 U.S.C. §102

The Office Action rejects claim 26 under 35 U.S.C. §102(b) as being unpatentable over Malone (U.S. Patent No. 5,819,270). Applicants respectfully traverse this rejection.

It is respectfully submitted that Malone fails to disclose or teach all of the features recited in claim 26 as amended. Specifically, Malone fails to disclose or teach an epistemological ground as recited in claim 26.

Malone discloses a process of composition and a process of specialization (for example, see Column 4 lines 22-25). However, Malone fails to disclose setting the "epistemological ground" which limits the process of the decomposition and the process of

specialization and a different description of the specialization, for each epistemological ground that can be recorded by changing an epistemological ground.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 26 under 35 U.S.C. §102(b).

C. Claims Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1-25 and 27-37 under 35 U.S.C. §103(a) as being unpatentable over Malone and further in view of Orfali in view of Heichler (U.S. Patent No. 4,757,506), in further view of Noik (U.S. Patent No. 4,757,506). This rejection is respectfully traversed.

It is respectfully submitted that the cited references, or combination thereof, do not disclose or suggest all of the features recited in claims 1-25 and 27-37. To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested in the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added).

The Office Action asserts that Malone discloses determining whether or not an end condition has been met (determining). It is respectfully submitted that Malone fails to disclose or teach the feature of determining whether an end condition of description defined in the epistemological grounds has been satisfied, as recited in claims 1-3, 15 and 27-34. The Office Action fails to even mention that such a determination is made.

In addition, the cited combination fails to disclose or suggest the feature that the epistemological ground includes information concerning definitions of the activity, the resource and the dependence relationship, as recited in claims 1-3, 15, 27-34, 36 and 37. This feature is supported in the specification at least in paragraph [0071].

The Office Action admits that Malone does not disclose the feature of the repeating, iterating and automation steps, and asserts that Orfali makes up for this deficiency. The Office Action cites pages 457, 422 and 268 of Orfali.

However, Applicants respectfully submit that Orfali fails to make up for the deficiencies of Malone. Specifically, Orfali fails to disclose or suggest the feature of repeating the inputting and analyzing steps until the end condition is met, as recited in claims 1-3, 15 and 27-34.

In particular, Orfali merely discloses a means to record a user's actions in order to form a script (page 422). The subject matter disclosed in Orfali is the automation of commonly used key strokes, that are then used to form a script. The script allows the keystrokes to be automated ("repeated"). However, the "repeating" performed in Orfali, is the result of the script and is not used to determine an end condition. The mere fact that Orfali discloses a form of repeating (Figure 24-10), is neither a disclosure nor suggestion of the repeating steps disclosed in claims 1-25 and 27-37.

The Office Action asserts that the combination of Heichler, Nishiya, Noik and Czedo makes up for the deficiencies of Malone and Orfali and that the references either discloses or suggests the inputting, characterizing, analyzing, determining and repeating steps recited in claims 1-25 and 27-37.

Specifically, regarding the Heichler reference, the Office Action cites col. 3 lines 20-38 which recites the feature of polynomials. Even if Heichler recites polynomials (col. 3 line 23), the Office Action does not cite where either Malone, Orfali or Heichler, discloses a motivation to combine the teachings of Malone (expert system) with the teachings of Heichler (a decoding method and apparatus).

Further, it is respectfully submitted Heichler is a non-analogous art with respect to Malone (an expert system) and Orfali (expert system) and that the teachings of Malone, Orfali and Heichler differ in both form and structure.

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention is concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

It is respectfully submitted that Heichler is neither within the field of art of Malone and Orfali nor even reasonably pertinent to the teachings of Malone and Orfali, because Malone and Orfali disclose an expert system and Heichler teaches a decoder circuit and method. The combination of the references do not teach or suggest the features recited in claims 1-25 and 27-37.

Regarding Nishiya, it is respectfully submitted that Nishiya fails to make up for the deficiencies of Malone, Orfali and Heichler. Although Nishiya mentions polynomials, Nishiya fails to disclose or suggest a polynomial link of n to m, as recited in claims 1-25 and 27-37.

Nishiya merely discloses a process control system that utilizes a polynomial to expand time-series data. In addition, the "Knowledge Base" shown is Figures 16 and 17 of Nishiya, merely disclose a truth table that provides predetermined answers to given scenarios. As stated above regarding Heichler, the use of the polynomials as disclosed in Nishiya (control system) is not analogous to the teachings of Malone and Orfali (expert systems).

Malone discloses specialization and decomposition. However, since Malone discloses two processes and dependencies among the processes (for example, "indication of dependencies among the processes into which the process is decomposed" as recited in claim 1 of Malone), Malone cannot derive dependencies of n to m from a single process.

Therefore, there is no motivation to combine Malone, an expanded E-R model characterized in the "E(entity) and R(relationship) of an E-R model are related to the activity and dependence relationship respectively, and a polynomial link of n to m is allowed in R."

Accordingly, it is respectfully submitted that the cited references, either alone or in combination, fail to disclose or suggest all of the features recited in claims 1-25 and 27-37.

Withdrawal of the rejection of claims 1-25 and 27-37 is respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-37 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Okabe et al. w/ translated date of publication on page 8.

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